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ABSTRACT

A micromachine and a manufacturing method according to the present invention are suitable for a micromachine that has a dynamic first microstructured portion serving as a drive portion, and a static second microstructured portion adapted to perform a switching function and functions to be performed as an optical element. The second microstructured portion can be manufactured at least without complex steps, such as a silicon process, by forming a static second microstructure on the dynamic first microstructured portion or in such a way as to be overlaid thereon by mold transfer. Thus, the microstructured portion of a complex shape can be easily formed with good reproducibility. This contributes to increased productivity thereof.

Especially, when a plurality of elements are arranged in an array, similarly as in the case of a spatial light modulator, the stable reproduction thereof is achieved by the mold transfer. Thus, as compared with the case of manufacturing all elements in a silicon process, the probability of an occurrence of a defect is very low. Consequently, this contributes to improved yield of micromachines.